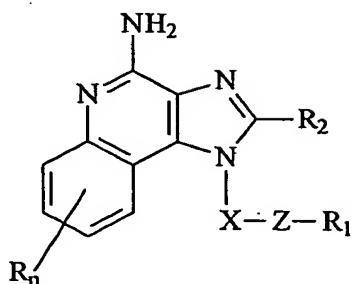


WHAT IS CLAIMED IS:

1. A compound of the formula (I):



(I)

wherein: X is $-CHR_3-$, $-CHR_3$ -alkyl-, or $-CHR_3$ -alkenyl-;

Z is $-S-$, $-SO-$, or $-SO_2-$;

R_1 is selected from the group consisting of:

-alkyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkenyl;

$-R_4$ -aryl;

$-R_4$ -heteroaryl;

$-R_4$ -heterocyclyl;

R_2 is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

- alkyl-Y-alkenyl;
-alkyl-Y-aryl; and
- alkyl or alkenyl substituted by one or more substituents selected
from the group consisting of:

- 5 -OH;
 -halogen;
 -N(R₃)₂;
 -CO-N(R₃)₂;
 -CO-C₁₋₁₀ alkyl;
10 -CO-O-C₁₋₁₀ alkyl;
 -N₃;
 -aryl;
 -heteroaryl;
 -heterocyclyl;
15 -CO-aryl; and
 -CO-heteroaryl;

each R₃ is independently H or C₁₋₁₀ alkyl;

each R₄ is independently alkyl or alkenyl;

each Y is independently -O- or -S(O)₀₋₂;

20 n is 0 to 4; and

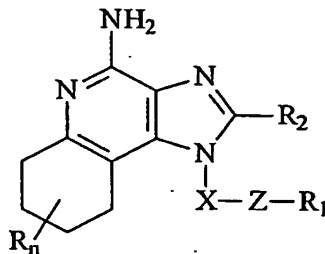
each R present is independently selected from the group consisting of C₁₋₁₀
alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl;
or a pharmaceutically acceptable salt thereof.

- 25 2. A compound of claim 1 wherein Z is -S-.
3. A compound of claim 1 wherein Z is -SO₂-.
4. A compound of claim 1 wherein R₁ is -alkyl.
- 30 5. A compound of claim 1 wherein R₁ is -aryl.

6. A compound of claim 1 wherein R₁ is phenyl.
7. A compound of claim 1 wherein R₁ is heteroaryl.
- 5 8. A compound of claim 1 wherein X is $-(CH_2)_{2-6}-$.
9. A compound of claim 1 wherein R₂ is H.
- 10 10. A compound of claim 1 wherein R₂ is $-alkyl-O-alkyl$.
11. A compound of claim 1 wherein R₂ is $-alkyl$.
12. A compound selected from the group consisting of:
 - 2-butyl-1-[4-(phenylthio)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 15 2-butyl-1-[2-(phenylthio)ethyl]-6,7,8,9-tetrahydro-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[4-(phenylsulfonyl)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[4-(methylthio)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[4-(methylsulfonyl)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 1-[2-(phenylthio)ethyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 20 1-[4-(phenylsulfonyl)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 1-[4-(methylsulfonyl)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 1-[4-(phenylthio)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 1-[4-(methylthio)butyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 25 2-methyl-1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-ethyl-1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-hexyl-1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-(2-methoxyethyl)-1-[5-(methylsulfonyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 30 2-butyl-1-[5-(methylthio)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[5-(methylsulfinyl)pentyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
 - 2-butyl-1-[3-(methylsulfonyl)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine; and

2-butyl-1-[3-(phenylsulfonyl)propyl]-1*H*-imidazo[4,5-*c*]quinolin-4-amine;
or a pharmaceutically acceptable salt thereof.

13. A compound of the formula (II)



(II)

wherein: X is -CHR₃-, -CHR₃-alkyl-, or -CHR₃-alkenyl-;

Z is -S-, -SO-, or -SO₂-;

R₁ is selected from the group consisting of:

-alkyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkenyl;

-R₄-aryl;

-R₄-heteroaryl; and

-R₄-heterocyclyl;

R₂ is selected from the group consisting of:

-hydrogen;

-alkyl;

-alkenyl;

-aryl;

-heteroaryl;

-heterocyclyl;

-alkyl-Y-alkyl;

-alkyl-Y-alkenyl;

-alkyl-Y-aryl; and

- alkyl or alkenyl substituted by one or more substituents selected from the group consisting of:

-OH;
-halogen;
-N(R₃)₂;
-CO-N(R₃)₂;
-CO-C₁₋₁₀ alkyl;
-CO-O-C₁₋₁₀ alkyl;
-N₃;
-aryl;
-heteroaryl;
-heterocyclyl;
-CO-aryl; and
-CO-heteroaryl;

each R₃ is independently H or C₁₋₁₀ alkyl;

each R₄ is independently alkyl or alkenyl;

each Y is independently -O- or -S(O)₀₋₂-;

n is 0 to 4; and

each R present is independently selected from the group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy, halogen and trifluoromethyl; or a pharmaceutically acceptable salt thereof.

14. A compound of claim 13 wherein R₁ is phenyl.

15. A compound of claim 13 wherein R₂ is H or alkyl.

16. A compound of claim 13 wherein R₂ is -alkyl-O-alkyl.

17. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 1 and a pharmaceutically acceptable carrier.

18. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 12 and a pharmaceutically acceptable carrier.
19. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound of claim 1 to the animal.
20. The method of claim 19 wherein the cytokine is IFN- α .
21. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound of claim 1 to the animal.
22. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound of claim 1 to the animal.
23. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound of claim 12 to the animal.
24. The method of claim 23 wherein the cytokine is IFN- α .
25. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound of claim 12 to the animal.
26. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound of claim 12 to the animal.
27. A pharmaceutical composition comprising a therapeutically effective amount of a compound of claim 13 and a pharmaceutically acceptable carrier.
28. A method of inducing cytokine biosynthesis in an animal comprising administering a therapeutically effective amount of a compound of claim 13 to the animal.
29. The method of claim 29 wherein the cytokine is IFN- α .

30. A method of treating a viral disease in an animal comprising administering a therapeutically effective amount of a compound of claim 13 to the animal.
- 5 31. A method of treating a neoplastic disease in an animal comprising administering a therapeutically effective amount of a compound of claim 13 to the animal.